Amendments to the Claims

The following listing reflects amendments to the claims and replaces all prior versions and listings of claims in this application.

1. (Currently amended) A topical delivery system, comprising:

a gemini surfactant in admixture with a nucleic acid~~biologically active agent~~, wherein the delivery system, when in contact with skin or a mucosal membrane, provides a therapeutic effect, and wherein the gemini surfactant has a spacer with length corresponding to $(CH_2)_n$, where $n = 3, 4, 6,$ or 16.

2. (Previously presented) The delivery system according to claim 1, wherein the gemini surfactant is selected from the group consisting of an anionic gemini surfactant, a gemini cationic surfactant, a neutral gemini surfactant, an amphoteric gemini surfactant, and mixtures thereof.

3. (Previously presented) The delivery system according to claim 1, wherein the gemini cationic surfactant has a hydrophobic tail comprising a C3-C30 alkyl group.

4. (Currently amended) The delivery system according to claim 1, wherein the ~~biologically active agent~~ nucleic acid is a plasmid DNA.

5. (Previously presented) The delivery system according to claim 4, wherein the plasmid DNA comprises a gene encoding for interferon-γ.

6. (Previously presented) The delivery system according to claim 1, wherein the delivery system includes further comprises one or more pharmaceutically-acceptable vehicles.

7. (Previously presented) The delivery system according to 1, wherein the delivery system further comprises one or more supplements suitable for application for skin or mucosa.

8. (Previously presented) The delivery system according to claim 6, wherein the delivery system is formulated to have a form selected from the group consisting of a cream, a lotion, a paste, an ointment, a foam, a gel, a lipid formulation, an emulsion, a solution, and a suspension.

9. (Previously presented) The delivery system according to claim 8, further comprising one or more supplements selected from a neutral carrier and a permeation enhancer.

10. (Previously presented) The delivery system according to claim 9, wherein the neutral carrier is selected from 1,2-dioleyl-sn-glycero-phosphatidylethanolamine (DOPE) or cholesterol.

11. (Previously presented) The delivery system according to claim 8, further comprising a compound selected from diethylene glycol monoethyl ether. polyglyceryl 3-diisostearate, PEG-8 caprylic and capric glycerides, and octyldodecyl myristate.

12.-19. (Cancelled)

20. (Withdrawn) A method for treatment of a skin disorder, comprising topically delivering a delivery system according to claim 1.

21. (Withdrawn) The method according to claim 20, wherein said delivering comprises delivering to a subject having a skin disorder selected from the group consisting of scleroderma, atopic dermatitis, and psoriasis.

22. (Withdrawn) The method according to claim 20. wherein said delivering comprises delivering to a subject having a skin disorder of genetic origin.

23. (Withdrawn) A method for treatment of a metabolic disease. comprising topically delivering a delivery system according to claim 1. wherein said metabolic disease is selected from the group consisting of gyrate atrophy, maternal hyperphenylalaninemia, familial hypercholesterolemia, and phenylketonuria.